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Patent

REMARKS

Claims 1-37 are in the case.

Claims 1-10, 14-27 and 32-37 are under consideration. Claims 11-13 are withdrawn from consideration but would be rejoined upon allowance of the generic claims. Claims 28-31 are withdrawn from consideration but would be rejoined upon allowance of the product claims pursuant to MPEP 821.04.

I. Rejections of Claims Under 35 U.S.C. §102 (e)

Claims 1-5, 9, 10, 16-20, 24-27 and 32-35 are rejected under 35 U.S.C. 102(e) over US 6,407,181 B1 to Daly et al. (hereafter "Daly").

Daly discloses a glycidyl (meth)acrylate copolymer/carboxylic acid functional polyester coating powder (col. 1, lines 5-7), or a coating powder composition including an epoxy component A and a carboxylic acid component B (col. 2, lines 10-12; col. 9, claim 1), in which epoxy component A includes a glycidyl (meth)acrylate (A1) (col. 2, lines 12-14; col. 9, claim 1) and two other optional epoxy functional materials (A2) (col. 2, lines 16-18; col. 9, claim 1) and (A3) (col. 2, lines 19-21; col. 9, claim 1), and carboxylic acid component B includes a carboxylic acid functional polyester (B1) (col. 2, lines 22-24; col. 9, claim 1) and two other optional acid functional materials (B2) (col. 2, lines 25-27; col. 9, claim 1) and (B3) (col. 2, lines 28-31; col. 9, claim 1). Daly discloses that the powdered composition is prepared by homogeneously mixing the resin components A and B with various conventional auxiliary substances (col. 6, lines 40-44). Daly further discloses that this homogenization is carried out by melting the resin components and the various auxiliary substances in an extruder at a temperature of between 90° and 100°C; the extrudate is then cooled, ground and sieved to give a powder. (col. 6, lines 45-53).

Claim 1 is directed to a powder coating composition including a first component (a) and a second component (b). The first component includes a melt-blended mixture of a glycidyl group-containing acrylic resin (i) and a curing agent chosen from dicarboxylic acids, or dicarboxylic acid anhydrides, or mixtures thereof (ii). The second component (b) is dry-blended with the first component (a) and includes at least one carboxyl-group

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containing material that has acid number of from about 10 to about 300 and that is not substantially compatible with the first component (a).

Daly discloses a conventional epoxy functional acrylate/acid functional polyester powder coating composition, of which all the components are melt blended in an extruder as presented above in more detail. Daly does not teach or suggest a melt-blended component including an epoxy functional acrylic resin and an acid functional curative; Daly does not teach or suggest a carboxyl-group containing material dry-blended with the melt-blended component. Furthermore, Daly does not teach or suggest "melt blending "crystalline materials" (i.e., the carboxylic acid component) with the epoxy component prior to blending with the carboxyl group containing material" as suggested on page 2, section 4 of the final Office Action. Daly does not teach or suggest that crystalline materials are the carboxylic acid component only. Instead, Daly discloses that the crystalline materials include both acid functional and epoxy functional materials, i.e., polycarboxylic acids B2 (col. 3, lines 49-52), crystalline polyesters B1c (col. 3, lines 49-55), and crystalline aromatic epoxies A3 (col. 4, lines 16-18; col. 9, claim 1). Secondly, Daly does not teach or suggest that crystalline materials are first melt blended with the epoxy component. Instead, Daly discloses the inclusion of crystalline materials in either epoxy component A or the carboxylic component B to further reduce the viscosities in the melt blending of the components at the extruder (col. 3, lines 44-48). Thirdly, Daly does not teach or suggest that crystalline materials are melt blended with the epoxy component A prior to blending with the carboxyl group containing material. There is nothing in Daly that teaches or suggests that crystalline carboxylic acid component is melt blended with the epoxy component prior to blending with the carboxyl group containing material and there is nothing in Daly that teaches or suggests that crystalline carboxylic acid component is melt blended with the epoxy component prior to dry-blending with the carboxyl group containing material. Instead, Daly discloses that all the components (components A and B and various auxiliary substances) are melt blended in an extruder at a temperature of between 90° and 100°C (col. 6, lines 30-53). Lacking at least the required elements of claim 1 as discussed above, Daly does not and cannot anticipate claim 1.

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Claims 5-10, 16-20, 24-27 and 32-35, each depending from claim 1, are also novel over Daly for the same reason delineated above.

Accordingly, the rejection of claims 1, 5-10, 16-20, 24-27 and 32-35 under 35 U.S.C. §102(e) over Daly is unwarranted. Applicants respectfully request that it be withdrawn.

II. Rejection of Claims Under 35 U.S.C. §103 (a) over Daly

Claims 21-23, 36 and 37 are rejected under 35 U.S.C. 103(a) over Daly.

Claims 21-23, 36 and 37 are dependent from claim 1. The rejection of claims 21-23, 36 and 37 under 35 U.S.C. 103(a) over Daly is based on the above refuted rejection that Daly discloses the composition of claim 1, and therefore, is unwarranted. Applicants respectfully request that it be withdrawn.

In view of all the forgoing, Applicants submit that the claims now pending in the application are in condition for allowance and action in accordance therewith is respectfully requested. In the event that claims are not allowed, the Examiner is invited to telephone the undersigned should a teleconference interview facilitate the prosecution of the application to allowance.

Respectfully submitted,

Date : 10/24/2005

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